

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number  
**WO 2005/019518 A1**

(51) International Patent Classification<sup>7</sup>: D06M 10/00, 10/02, 15/03, 15/15

(21) International Application Number: PCT/IB2004/002962

(22) International Filing Date: 26 August 2004 (26.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0319929.6 26 August 2003 (26.08.2003) GB

(71) Applicant (for all designated States except US): CSEM CENTRE SUISSE D'ELECTRONIQUE ET DE MICROTECHNIQUE SA [CH/CH]; Jaquet Droz 1, CH-2007 Neuchatel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SIGRIST, Hans [CH/CH]; Im Holz 10, CH-3309 Kernenried (CH). CREVOISIER, François [CH/CH]; Impasse du Ruhant 3, CH-2088 Cressier (CH). CHAI GAO, Hui [CN/CH]; Rue de Jolimont 5, CH-2000 Neuchatel (CH).

(74) Agent: THORNTON, Neil; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/019518 A1

(54) Title: FUNCTIONALIZATION OF YARN AND TEXTILE PRODUCTS

(57) Abstract: Methods of chemical and biochemical functionalisation of yarn and textile products are described. A yarn or textile product is contacted with a linker molecule comprising two or more photochemically active chemical groups and a non-linker molecule having a desired property. Photochemical activation of the chemical groups causes covalent attachment of the non-linker molecule to the yarn or textile product by means of the linker molecule in a single step. The methods are particularly useful for immobilisation to yarn or textile of biomolecules that are susceptible to denaturation. Use of linker molecules derived from proteins or polysaccharides further minimises denaturation of the biomolecule.